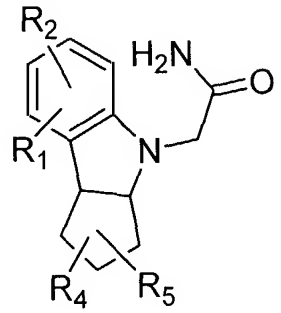
Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1. (Original) A compound of the formula:



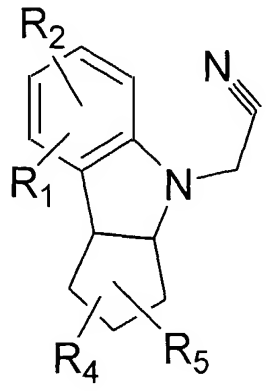
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

2. (Original) A compound of Claim 1 wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.

3. (Original) A compound of Claim 1 wherein R_1, R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.

4. (Original) A compound of Claim 1 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)-acetamide.

5. (Original) A compound of the formula:



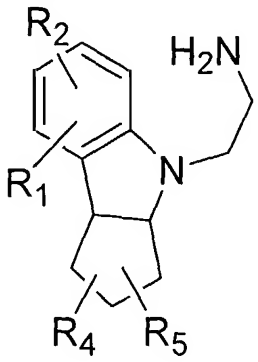
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

6. (Original) A compound of Claim 5 wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.

7. (Original) A compound of Claim 5 wherein R_1, R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.

8. (Original) A compound of Claim 5 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)-acetonitrile.

9. (Original) A compound of the formula:



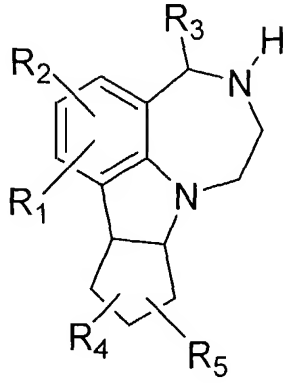
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

10. (Currently amended) A compound of Claim ~~5~~ 9 wherein R_1 and R_2 are hydrogen, and R_4 and R_5 are as defined in Claim 1.

11. (Currently amended) A compound of Claim ~~5~~ 9 wherein R_1, R_2 and R_4 are hydrogen, and R_5 is as defined in Claim 1.

12. (Currently amended) A compound of Claim ~~5~~ 9 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)- ethylamine.

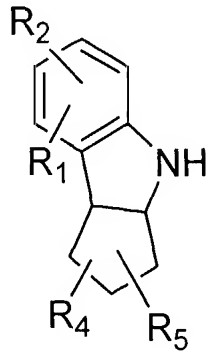
13. (Currently amended) A process for synthesis of a compound of the formula:



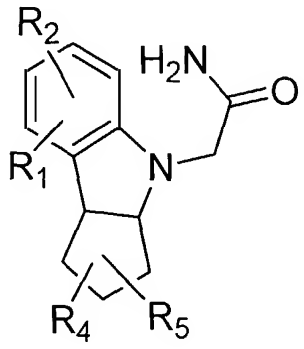
wherein R_1, R_2, [[R_3,]] R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R_3 is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl;~~as defined in Claim 1, the~~ the process comprising the steps of:

a) converting a cyclopenta[b]indole compound of the formula:

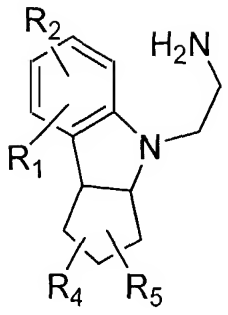


to an optionally substituted cyclopenta[b]indol-4-ylacetamide compound of the formula:



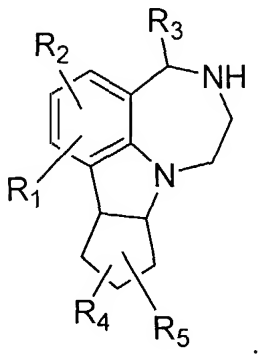
;

b) reducing the optionally substituted cyclopenta[b]indol-4-ylacetamide of step a) to the corresponding optionally substituted cyclopenta[b]indol-4-yl-amine of the formula:

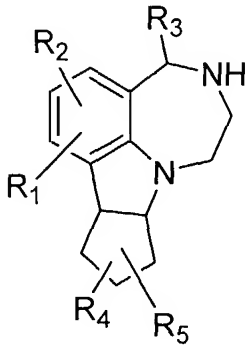


; and

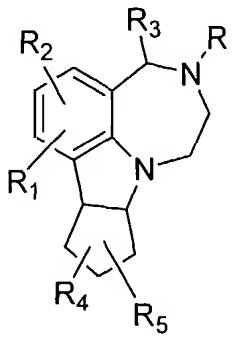
c) cyclizing the cyclopenta[b]indol-4-yl-amine of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



14. (Currently amended) The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

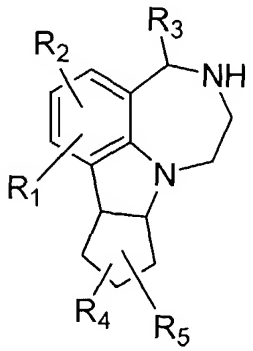


with an alkylating agent to produce a compound of the formula:

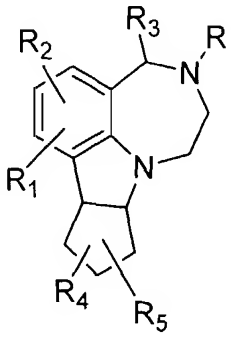


wherein R is alkyl of from 1 to 6 carbon atoms and R_1, R_2, R_3, R_4 and R_5 are as defined in ~~Claim 1~~ Claim 13.

15. (Currently amended) The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

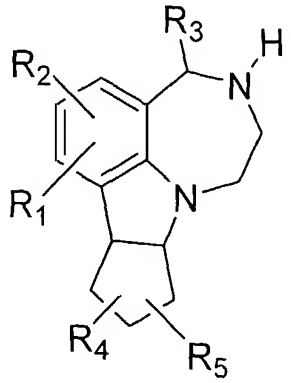


with an acylating agent to produce a compound of the formula:



wherein R is –C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl;
and R_1, R_2, R_3, R_4 and R_5 are as defined in ~~Claim 1~~ Claim 13.

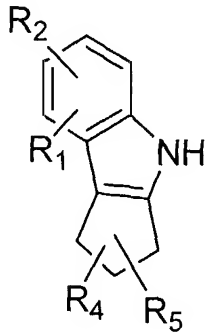
16. (Currently amended) A process for preparing a compound of the formula:



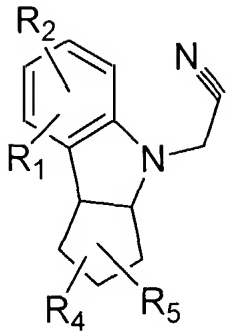
wherein R_1, R_2, [[R_3,]] R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R_3 is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl;~~as defined in Claim 1, the~~ the process comprising the steps of:

a) converting an optionally substituted cyclopenta[b]indole compound of the formula:

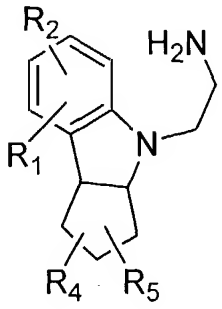


to an optionally substituted nitrile compound of the formula:



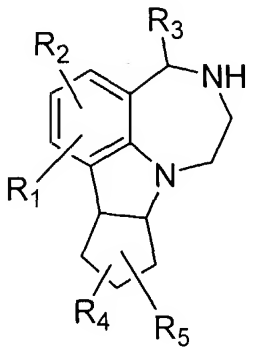
;

b) reducing the optionally substituted nitrile compound of step a) to provide an optionally substituted amine compound of the formula:

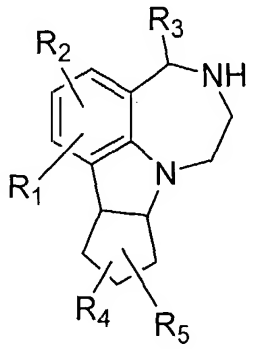


; and

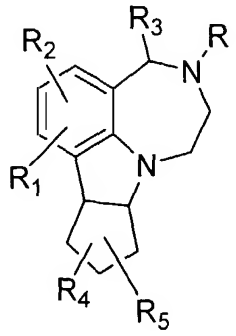
c) cyclizing the amine compound of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



17. (Currently amended) The process of Claim ~~13~~ 16 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

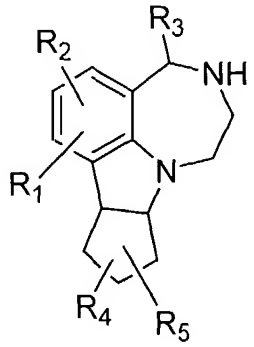


with an alkylating agent to produce a compound of the formula:

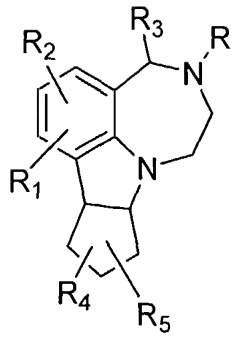


wherein R is alkyl of from 1 to 6 carbon atoms and R_1, R_2, R_3, R_4 and R_5 are as defined in ~~Claim 1~~ Claim 16.

18. (Currently amended) The process of Claim ~~13~~ 16 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

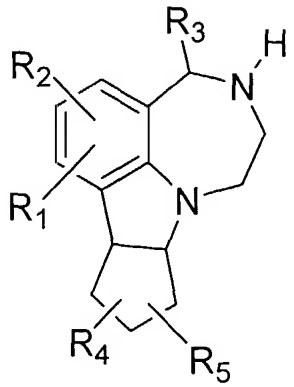


with an acylating agent to produce a compound of the formula:



wherein R is –C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl;
and R_1, R_2, R_3, R_4 and R_5 are as defined in ~~Claim 1~~ Claim 16.

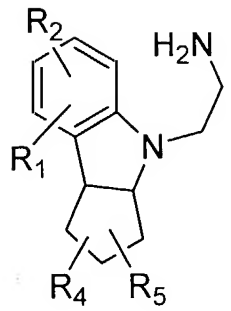
19. (New) A process for preparing a compound of the formula:



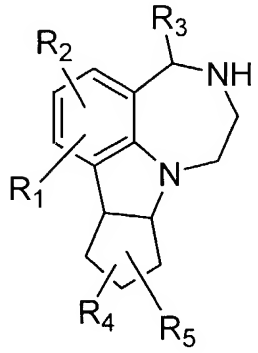
wherein R_1, R_2, R_4 and R_5 are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl;

R_3 is hydrogen, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, fluorinated alkyl of from 1 to 6 carbon atoms, -NH-SO_2-alkyl of 1-6 carbon atoms, -SO_2-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl, or aroyl; the process comprising the steps of:

cyclizing an optionally substituted amine compound of the formula:



to provide an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:



wherein R_1, R_2, R_3, R_4 and R_5 are defined as above.